

Application Serial No. 10/662,718
Reply to Office Action of February 8, 2005

PATENT
Docket: CU-3360

REMARKS

In the Office Action, dated February 8, 2005, the Examiner states that Claims 1-26 are pending, Claims 1-6 are rejected and Claims 7-26 are withdrawn. By the present Amendment, Applicants amend the specification and the claims.

In the Office Action, the abstract is objected to for being too long. The Applicants have amended the abstract to shorten it.

In the Office Action, Claim 1 is rejected under 35 U.S.C. §102(e) as being anticipated by Kawase (U.S. 6,730,357). Claim 1 is also rejected under 35 U.S.C. §102(e) as being anticipated by Fujita et al. (U.S. 6,720,029). The Applicants have amended Claim 1 and consider that the amendment overcomes the rejections.

The invention described in amended Claim 1 is a method for manufacturing an organic EL display which sequentially and continuously carry out a process of "discharge-placing at least an organic EL material in a form of solution on a substrate" and a process of "drying the organic EL material in a form of ink immediately after placed on the substrate by heating while relatively moving a heating device to the substrate." Thus, the organic EL material is forcibly dried by heating immediately after being discharged on the substrate.

As it is described in the specification of the present invention, if an organic EL material, in the form of ink discharged by an ink jet method, is air-dried, a so-called meniscus shape is caused giving a layer an uneven layer thickness. Furthermore, when an organic EL material in the form of ink is dried by commonly used stage heating, the nozzles for applying the organic EL material in the form of ink are heated by the heat. As a result, the concentration of the ink in the nozzles will be changed to cause problems such as a drastic deviation of the ink discharging condition or a clogging of the nozzles which leads to many poor discharges.

In contrast, each region where an organic EL material is applied to is forcibly dried by heating while relatively moving a heating device to the substrate. Thus, the organic EL material immediately after its placement on the substrate can be dried effectively to enable the formation an organic EL layer having uniform film thickness. Moreover, in the present invention, by drying the organic EL material by heating while relatively moving a heating device to the substrate, it is possible to heat only the region related to drying the ink while causing less change in the concentration of the ink or less poor discharges.

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Kawase does not describe nor suggest drying an organic EL material by heating while relatively moving a heating device to the substrate. Likewise, Fujita also does not describe nor suggest drying an organic EL material by heating while relatively moving a heating device to the substrate. Moreover, the invention described in the Fujita does not produce effects and advantages similar to those of the invention described in Claim 1 of the present invention.

In the Office Action, dependent Claims 2-6 are rejected as being unpatentable under 35 U.S.C. §103(a) over various references. In view of the above response, the Applicants consider Claims 2-6 to also be patentable for the same reasons as independent Claim 1.

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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